

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

(12) UK Patent Application (19) GB (11) 2 075 573 A

(21) Application No 8112625
(22) Date of filing 23 Apr 1981

(30) Priority data

(31) 80/14571

(32) 2 May 1980

(33) United Kingdom (GB)

(43) Application published
18 Nov 1981

(51) INT CL³
A01K 1/04

(52) Domestic classification
E1D PA

(56) Documents cited
GB 257508

(58) Field of search

E1B

E1D

E1H

(71) Applicant

Roderick John Roberts,
3 Bailey Street, Derby

(72) Inventor

Roderick John Roberts

(74) Agents

Swindell & Pearson,
44 Friar Gate, Derby

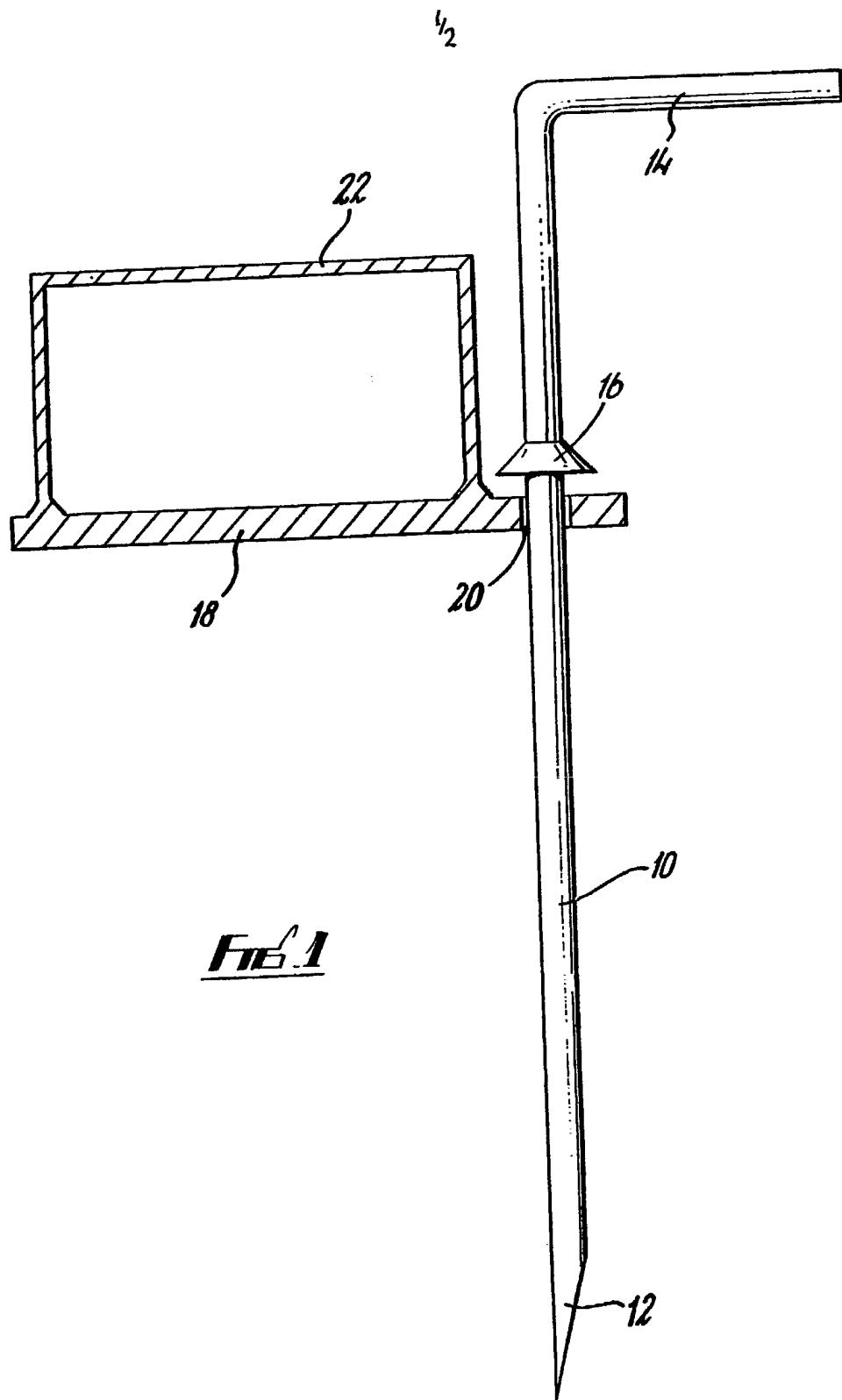
(54) Tethering device

(57) An animal tethering device comprises a ground engaging rod over which a cross-member, preferably in the form of a stirrup may slide, the hole in the cross-member through which the rod passes being so

dimensioned relative to the cross-section of the rod that with the axis of the cross-member normal to the rod axis the cross-member is slidable over the rod while the axis of the cross-member at angle displaced from normal, the edges of the hole engage the rod so that it may be driven into the ground by the stirrup.

GB 2 075 573 A

2075573



2075573

2/2

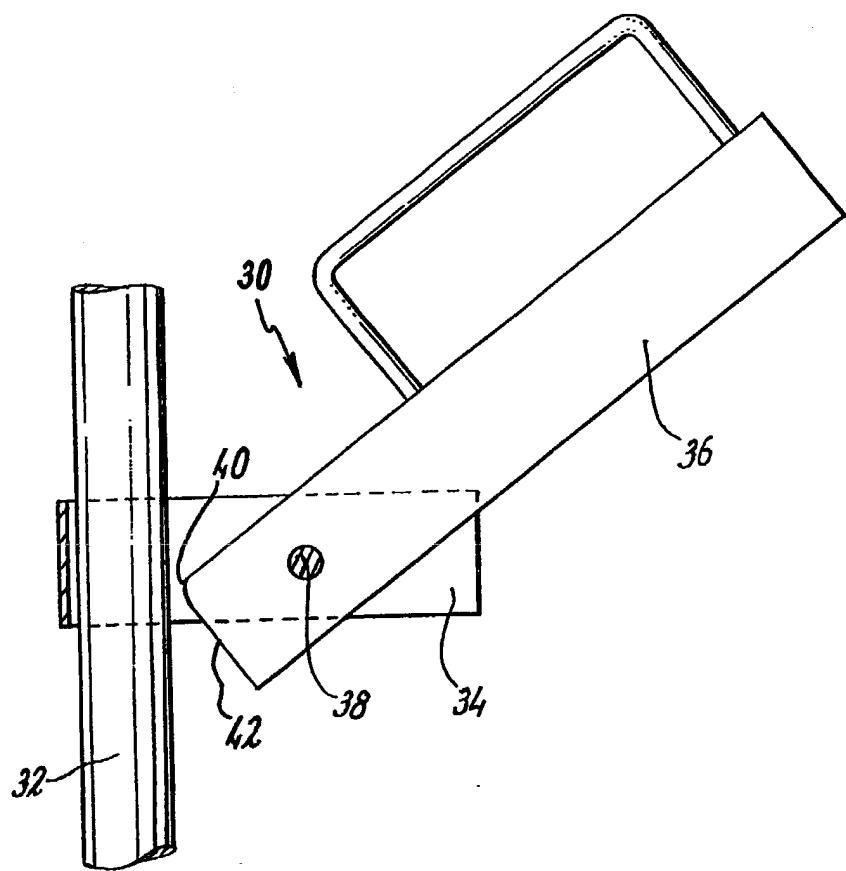


FIG. 2

SPECIFICATION
Tethering device

The present invention concerns an improved tethering device, especially but not exclusively an animal tethering device for use in tethering dogs on open ground where no tethering facility is readily available; for example at open-air dog shows, camping and caravan sites.

It is desirable to have a device which is portable, light, yet strong enough to be driven into compacted soil with little effort. One existing tethering device is based on the corkscrew principle and another is simply a stake driven directly into the ground by the use of a heavy hammer. Both these prior devices require considerable effort to put into place especially when the ground is hard and it has been found almost impossible to introduce the corkscrew device into hard ground. They are both difficult to remove.

It is an object of the present invention to obviate or mitigate these disadvantages.

According to the present invention there is provided a tethering device comprising an elongated ground engaging member and a cross-member having an opening through which the ground engaging member passes, the dimensions of said opening being such that optionally with the cross-member disposed at one angle relative to the ground engaging member it is slidable over the ground engaging member, or when arranged at another angle thereto, is engageable with said member.

Preferably said ground engaging member includes a handle at one end. It may also include a collar to limit the movement of the cross member towards said handle. Preferably it is provided with a point and it may have a circular cross-section. It may be provided with spaced protrusions, for example circumferential rings, over which the cross-member may pass but which may assist the cross-member in its engagement with the ground engaging member.

Preferably the cross-member has an inverted U-shaped handle on its upper surface but it may be a simple bar having a ring attached thereto.

An embodiment of the present invention will now be described by way of example only with reference to the accompanying drawings in which:

Fig. 1 shows an elevation of an animal tethering device with the cross-member thereof in section; and

Fig. 2 shows a partial elevation, partly in cross-section of a modified tethering device.

A ground engaging member 10 of a dog stake comprises a circular cross-section alloy steel rod with a pointed end 12, an upper end 14 bent over at right angles to the remainder of the rod to form a handle and a collar 16 fixed on the rod at a point spaced from and nearer to the handle 14 than to the pointed end.

A cross-member 18 formed from a plate has a circular hole 20 drilled therethrough, the diameter

of the hole being greater than the diameter of the plate by a pre-determined amount. A handle portion 22 is fixed to the upper face of the cross-member 18 to form a stirrup-like assembly.

In operation, the cross-member is positioned on the ground and the pointed end 12 of the rod is passed through the hole 20. The handle 14 is then gripped to hold the point of the rod 10 against the ground and the front part of the user's foot is inserted beneath the handle 22 and the handle is slid up the cross-member by about 4 inches. He then pushes down on the cross-member and this causes a tilting movement of the cross-member relative to the rod, this movement being permitted by the over-sized hole 20 and terminating when diametrically opposed edges of the hole grip the rod 10. Further downward movement of the cross-member causes the rod to be forced into the ground until the bottom of the cross-member is in contact with the ground. The operation can be repeated until the upper face of the cross-member abuts the collar 16. An animal's lead can then be attached to the handle 22 and it will be realised that the cross-member can pivot about the rod 10 thus reducing the risk of the lead tangling.

To remove the device an upward force is applied to the handle 14.

Various modifications can be made without departing from the scope of the invention as exemplified in the above-described embodiment,

for example either the collar 16 and/or the handle 14 can be omitted from the rod. If the handle 14 is omitted then the cross-member 18 may be used to remove the rod from the ground in a manner opposite to that described above. The cross-

member can have any suitable shape, for example it could be a circular shape with a central hole and it need not be provided with a handle 22 of the type disclosed in the embodiment, although this is helpful as it enables the foot to be used to raise

the cross-member relative to the rod and to push the rod into the ground. If no handle is provided it is convenient to attach a ring to the cross-member so that the animal lead can be attached to the ring. Alternatively the handle 22 could be replaced

by a strap and buckle arrangement. The opening in the cross-member need not be a hole through the member but could be a slot in its side into which the ground engaging member is fitted.

To enhance the grip of the cross-member on the rod during the driving-in operation the rod may be provided with a plurality of protrusions, for example, circumferentially extending ridges spaced along the length of the rod at least in that portion below the collar 16.

In the modification shown in Fig. 2 the cross-member 30 mounted on the ground engaging member 32 comprises a first U-shaped collar 34 embracing the member 32 and a second pedal part 36 pivotally mounted about a pin 38 carried

by the collar 34. The length of the pedal part 36 between the pin 38 and the ground engaging member is so selected that with the pedal part 36 in an upwardly angled position, as shown in Fig. 2 it does not contact the member 32 but as it is

pivotted downwards first the corner 40 and thereafter more of the end face 42 abuts the member 32 to provide the frictional engagement between the cross-member and ground engaging member necessary when driving the latter into the ground.

CLAIMS

1. A tethering device comprising an elongated ground engaging member and a cross-member having an opening through which the ground engaging member passes, the dimensions of said opening being such that optionally with the cross-member disposed at one angle relative to the ground engaging member it is slidable over the ground engaging member, or when arranged at another angle thereto, is engageable with said member.
2. A device as claimed in claim 1, in which said ground engaging member includes a handle at one end.
3. A device as claimed in claim 1 or claim 2, in which the ground engaging member includes also a collar to limit the movement of the cross member towards one end.
4. A device as claimed in any one of claims 1 to 3, in which the ground engaging member is provided with a point.
5. A device as claimed in any one of claims 1 to 4, in which the ground engaging member has a circular cross-section.
6. A device as claimed in any one of the preceding claims, in which the ground engaging member is provided with spaced protrusions, for example circumferential rings, over which the
- 35 cross-member may pass but which may assist the cross-member in its engagement with the ground engaging member.
7. A device as claimed in any one of the preceding claims, in which the cross-member has an inverted U-shaped handle on its upper surface.
8. A device as claimed in any one of claims 1 to 6, in which the cross-member is a bar having a ring attached thereto.
9. A device as claimed in any one of the preceding claims, in which the opening has a shape corresponding to the cross-section of the ground engaging member and has greater dimensions than said member.
10. A device as claimed in any one of claims 1 to 8, in which the opening is a slot formed in the side of the ground engaging member, the width of the slot being greater than the corresponding width of the ground engaging member.
11. A device as claimed in any one of claims 1 to 8, in which the cross-member includes a first collar part partially embracing the ground engaging member and a second pedal part pivotally mounted on said collar part and downwardly pivotal from one position where its inner end is spaced from the said member to another position in which its inner end engages the member.
12. An animal tethering device substantially as hereinbefore described with reference to Fig. 1 or Fig. 2 of the accompanying drawings.
13. Any novel subject matter or combination including novel subject matter herein disclosed, whether or not within the scope of or relating to the same invention as any of the preceding claims.